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CURRENT SERIAL RECORDS

pioneer food makes a comeback



wood engraving by Bobbett after F. C. Darley

# JERKY!

a pioneer food  
in an  
astronaut age

© 1936 by S. Nelson



"ON THE MORNING of the eighteenth we issued 6 lbs. of jirked Elk pr. man, this evening the Sergt. reported that it was all exhausted; the six lbs. have therefore lasted two days and a half only."

Making this entry in his journal on a January day in 1806, Meriwether Lewis made it pretty plain that jerky was highly popular among the men in the Lewis and Clark expedition.

Later on, America's pioneers similarly made jerky a staple in their diet as they forged westward. They, too, found it a nutritious food—and a particularly ideal one because it needed no refrigeration.

Today, no matter where you live, you can enjoy the savory flavor and chewiness of jerky after making a quick trip to most any supermarket or specialty foodstore.

Aside from its shelf-stable quality, which still makes it an asset on the trail, jerky can be tasty with your favorite drink, as an hors d'oeuvre, or as a nutritious between-meal snack.

Descended from the dried meat known by early Andean peoples as "charqui," today's jerky is thinly sliced; usually made from beef; appropriately spiced; and air-dried, oven-dried, or smoked. With

advanced processing techniques, jerky can now be made within 24 hours, instead of the 2 to 3 months it took for natural curing when the pioneers and Indians made it.

If processed by a company selling meat products across State lines, it must bear the round USDA inspection mark. Inspectors check sanitation of equipment, facilities, and all materials used in processing, as well as the meat itself at various processing stages.

They see that the moisture-protein

ratio of jerky doesn't exceed 0.75 to 1. To the consumer this means the product will not need refrigeration.

Labeling is also scrutinized as part of the inspection process. Every federally inspected plant planning to produce jerky—as with any other meat product—must have its label design and formula for production approved in advance by USDA's Consumer and Marketing Service.

The information USDA requires on a label can help you select the product

you want. The net weight must be shown, and a statement must list all the ingredients in order of weight, with the heaviest first. The name of the product itself—along with the ingredient statement—gives you a clue as to what you're buying. Here's a typical example:

*Beef Jerky*—Ingredients: Beef, Salt, Sugar, Flavorings, Monosodium glutamate, Erythorbic acid, Sodium nitrate, Sodium nitrite.

If jerky is produced from large



*Has mixer been properly cleaned? Inspector (far left) finds out. A sound product depends on wholesome ingredients and careful processing. For "sectioned and formed" jerky, meat is mixed with added ingredients (left), then is molded, pressed into blocks, cooked, and cut into strips for drying.*

chunks of meat and molded and formed before it's cut into strips and dried, C&MS requires that the product name include the words, "Sectioned and Formed."

The plain beef jerky comes closer to that which the pioneers produced, while the sectioned and formed kind is more uniform in appearance and texture.

Jerky is usually smoked by natural means, but if smoke flavoring has

been added, USDA inspectors require that the words, "Smoke Flavoring Added," appear by the product name.

As is the case for all meat products, inspection helps provide "from hoof to package" assurance that it's a wholesome and truthfully labeled product.

And, if you're trying jerky for the first time, you'll soon discover, as did the men in Lewis and Clark's party, that your supply is exhausted before you know it! □



*Drying (upper left) is key step, making jerky "shelf stable." Plant technician (above) puts jerky through moisture tests, to see that it conforms to USDA requirements. Other samples are drawn by USDA inspector for testing in official laboratory. Finished jerky sticks (lower left) are packaged. Inspector (left) examines packaging and labeling.*

**T**HE SOUTHERN CORN blight which attacked the 1970 corn crop left this country with a paradox and a question—in addition to the all-important question about what's going to happen this year.

The paradox: Although 1970 corn production was 10 percent less than in 1969, the quality of that part of the crop sent to market was the best in 4 years.

This evaluation is based on representative samplings of more than 100,000 inspections of corn by licensed inspectors of USDA's Consumer and Marketing Service. (Under the U.S. Grain Standards Act, USDA provides voluntary inspection of corn for quality at the request of either the buyer or seller. Inspection of corn shipped by grade in foreign commerce is mandatory.)

The question: What happened to corn damaged by the blight?

As far as can be determined, corn most heavily damaged by the blight remained on the farm to be used as feed.

Some blight-damaged corn did appear in carlots going to market, but not enough to downgrade the overall quality of the corn.

Last year was not the first time that a disease had damaged corn. Corn diseases have occurred in varying degrees, usually on a regional or sectional basis, for many years.

Last year's blight, however, was the most extensive and the most publicized in history. And it hurt many farmers financially, according to USDA's Extension Service.

As to the question of what's going to happen in 1971, scientists who have studied the matter say it cannot be predicted with any degree of accuracy whether there will be extensive corn blight damage this year or not.

Much depends on weather conditions and the availability of blight-resistant seed, especially in areas most susceptible to the blight.

As for the paradox, the weather conditions which apparently encouraged the blight also were favorable for producing a high percentage of good quality corn.

C&MS' Grain Division reviews the quality of each year's grain crop for the benefit of producers, grain dealers,

and others who need such information.

Grain Division employees followed the 1970 corn harvest season for nine weeks, collecting information from official inspection certificates about the quality of the crop in scores of marketing areas.

Based on a sampling formula, a predetermined number of inspection certificates were collected from all corn-producing areas to assure a high degree of accuracy in analysis. The information gathered was put on punch cards and subsequently transferred to computer tapes. The analysis was made using a computer located in USDA's headquarters building in Washington, D.C.

Results showed that a greater percentage of the 1970 corn crop inspected was in the top two U.S. grades than the crops of the past 4 years. Nearly 40 percent of the crop graded U.S. No. 2 or higher in 1970, compared with only 25 percent in 1969.

Part of the reason the corn graded higher was that the test weight per bushel—an important grading factor—was higher in 1970 than in 1969.

The computer's-eye view of the 1970 corn crop showed that although overall quality was better than in previous years, the percentage of kernels damaged by blight, heat, and weather was also higher. The percentage of damaged kernels, however, is just one of several grading factors. Better scores on the other grading factors—test weight per bushel, moisture content, percentage of broken kernels and foreign matter—more than compensated for the increase in damaged kernels. The percentage of moisture, broken kernels and foreign material in the corn going to market was lower. This, together with higher test weights per bushel, helped the corn to grade better than usual.

According to plant pathologists, the blight was first noticed near Belle Glade, Fla., in the early spring of 1970. Spores from diseased fields around Belle Glade were carried northward by winds and deposited throughout Florida, southern Georgia, and the coastal areas of Alabama, Mississippi, Louisiana, and Texas. By mid-June the Extension Service was reporting the blight in western Tennessee and southwestern Kentucky.

Later, the blight had formed two paths: one moving northward up the Mississippi River into the Midwestern Corn Belt, where heavy damage occurred, the other moving up through the Carolinas.

Rainy weather, high humidity, heavy dews, and mild temperatures helped the spores move rapidly.

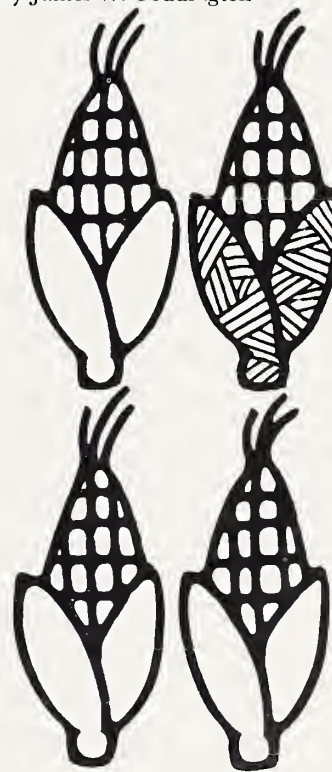
Extension specialists report that the corn blight struck normal, healthy plants at every stage of development.

Now that the 1970 harvest season is over, all concerned—producers, processors, seed suppliers, plant scientists, grain dealers, and others—are watching to see what happens in 1971. USDA grain inspectors will also be watching, as they do every year, the quality of this most important crop. □

*The author is Chief, Program Analysis Branch, Grain Division, C&MS, USDA.*

## KEEPING AN EYE ON THE CORN CROP

By James W. Coddington



# perishable

## KEEP UNDER REFRIGERATION

### guidelines for chilling, freezing & packaging meat

By Dr. Lois E. Hinson

PROPER USE OF refrigeration and freezing helps meat packers supply wholesome food to the public. To aid them with this large responsibility, USDA's Consumer and Marketing Service studies better ways of handling meat.

USDA recently developed guidelines for chilling, freezing, and packaging meat and meat byproducts, based on results of an extensive study of plant operating practices. Industry representatives were consulted while the study was being conducted and after its completion by meat inspection experts.

By following the guidelines presented here, a packer can reduce the possibility of products becoming unsound during preparation, storage, and distribution.

While meat and byproducts are being prepared at the plant, they must be quickly chilled to avoid spoilage. To retard bacteria growth, which can cause this spoilage, carcasses should be chilled to an internal temperature of 40 degrees.

Byproducts, such as livers, will also spoil unless refrigerated to 40 degrees within a reasonable time—about 1½ hours after evisceration. To reach this temperature, chill coolers must be kept at or below 36 degrees.

Meat products are often frozen

before shipping. For storage, a packer should lower the product's temperature to 0 degrees or less because spoilage-causing bacteria stop growing, or grow very slowly, below 14 degrees. 0 degrees provides for a margin of safety. To do this freezers must be capable of maintaining a temperature of —5 degrees or lower.

Inadequate air circulation can spoil meat in both chilling and freezing. Freezers must have forced air circulation between 500 and 1,000 cubic feet per minute, so cold air can reach all product surfaces. Carcasses, especially heavy beef, should have room for air to circulate between them.

For boxed products, spacing between layers and between boxes in individual layers is necessary for proper freezing. Stacking without adequate spacing will actually insulate the interior of the stack and retard the freezing process. Products may spoil before freezing.

Frozen products must be 0 degrees or lower throughout before they may be labeled as frozen. They may *appear* frozen when actually only the outer surfaces are frozen. Such products could spoil in transit if the carrier temperature is higher than the temperature of the products.

To avoid the possibility of partially frozen products, internal temperatures

should be periodically checked by drilling a small hole in the center of the frozen product and inserting a thermometer. A stainless steel spike or hand drill with a stainless steel bit should be used. All instruments must be sanitary to keep the product clean.

Besides avoiding bacteria growth, another reason to thoroughly freeze products is to preserve their shelf life. Depending on the particular product, shelf life varies from 2 to 6 months. A good way to determine which is the older product (which should be shipped first) is by a date-of-pack marking on product containers. A packing date also aids inspectors in reinspecting frozen products ready for shipment.

When packaging products before shipping, carcasses or quarters should be wrapped with cloth, paper, or other suitable covering. A protective covering prevents rail dust, grease, and other contaminants from reaching the carcass surface. Coverings also reduce bacterial contamination that can occur each time the carcass is handled between the plant and consumer.

Containers of meat and byproducts must be kept clean of blood and other spoiling agents. Such unsanitary and unsightly soilage is often caused by the overfilling of boxes and by blood soaking through boxes that lack moisture-resistant coatings. Polyethylene, or heavy waxed paper, should line boxes lacking this type of interior.

Unassembled boxes, intended for later use, should be stored in clean, dry storage areas. These rooms should be tightly closed and free from moisture, dust, insects, and rodents.

These guidelines will not solve all problems, but if followed, they're a step in the right direction. It's to everyone's advantage—packer, inspector, and consumer alike—that the packer follow them closely. Only by paying careful attention to the many variables involved in meat marketing can a clean, sound product be produced. □

*The author is a former staff officer, now with the Issuance Coordination Staff, meat and poultry inspection program, C&MS, USDA.*

## a look at the Lab from "9 to 5"



EACH DAY IN SEVEN cities across the country a pile of packages arrives containing product samples from the Nation's meat and poultry plants. Awaiting these deliveries are skilled laboratory personnel working for USDA's Consumer and Marketing Service.

The scene takes place at any one of the seven regional chemistry laboratories which are part of the C&MS Meat and Poultry Inspection Program. These labs are located in Chicago, Kansas City, New York, Omaha, St. Louis, San Francisco, and Washington, D.C.

The labs supplement the work of the inspectors in the plants as a further check on the wholesomeness of federally inspected products.

States which have had their inspection programs declared equal to the Federal system also have laboratories which are capable of analyzing these products.

Among the routine procedures of a field inspector is submission of samples of certain products, such as cooked sausages. The labs determine, for example, the protein and moisture content of the product. Should an inspector suspect a problem, such as a chemical residue, he will send in additional samples for special analysis.

The results of these tests are also used to verify the accuracy of product labels. Typically, the chemists will

check whether all the ingredients listed on the product label are actually in the product and vice versa.

Frankfurters, the Nation's number one processed meat product, receive their share of attention. Federal regulations were revised in 1970 to limit the fat content of frankfurters and other cooked sausages to 30 percent.

The chemistry labs monitor compliance with this fat level requirement. On a normal day a regional lab will test about 25 cooked sausage samples mailed in by field inspectors.

The analysis isn't limited to fat content, but also includes moisture, protein, and other factors. Sausages which contain binders, such as cereal or nonfat dry milk, are also analyzed to be sure they contain only the limited amount.

The new limitation on fat in hot dogs has increased the demand for laboratory compliance tests. To handle the added workload, C&MS has initiated a certification program for commercial laboratories, so they can conduct tests on cooked sausages. The C&MS labs, in turn, monitor the testing of the certified labs.

C&MS labs also analyze other ingredients in a product. For example, inspectors regularly submit samples of spices and seasonings which go into federally inspected products to ensure that they conform to Food and Drug

Administration standards. In this way, C&MS supplements the work of FDA, which has primary responsibility for the wholesomeness of non-meat or non-poultry ingredients. In a typical day a regional laboratory scrutinizes about ten samples of spices and seasoning.

The curing solutions used in processing hams, nonfat dry milk and soy protein concentrates, and other chemical additives used in meat and poultry products are checked equally.

Much of the laboratory work is relatively routine. But some analyses require the use of sophisticated equipment.

Growth-promoting hormones in animal feed or pesticides or insecticides used in or around facilities may become residues in meat. These must be detected through the use of a modern gas chromatograph. Many products are screened for heavy metal residues with a spectrophotometer. Once a laboratory detects excessive quantities of any harmful element, a chain of actions is triggered to protect consumers from harm.

Few consumers realize that such a network of laboratories and trained chemists exists to help ensure the wholesomeness and accurate labeling of their meat and poultry purchases. But as a glance through the looking glass will show, there's plenty going on behind the scenes. □

IF YOU CAN USE factual, current information on prices and market conditions for ornamental crops, the growing Market News Service on these products can help you.

Reports of the Federal-State Market News Service now cover sales in four production areas and seven terminal markets.

They are the central coastal counties of California, southern California, Florida, and New England production areas; and the San Francisco, Chicago, Dallas-Fort Worth, Honolulu, Boston, Minneapolis-St. Paul, and Milwaukee, Wis., terminal markets. The Milwaukee report, which is issued from Chicago, is the latest addition to the service.

The purpose of the Market News Service on Ornamental Crops, operated by USDA in cooperation with State agencies, is to help growers, shippers, buyers, and distributors to efficiently market ornamentals.

How does market news help?

If you're a grower or shipper, you can use information on general market conditions and the prices being paid in your area and in competing production areas as an aid in your marketing. You also can see how prices are running at terminal markets and thus have a base for decisions on when and where to market your crops.

If you're a wholesaler, you can use the same information to help decide when and where to buy the supplies you need. And data on the prices in your market and other terminal markets can help you establish your prices.

If you're a retailer, knowledge of general market conditions and prices on terminal markets and in production areas can help you plan and bargain for the products you need for your customers.

The Market News Service on Ornamental Crops is relatively new—but it is steadily developing into a nationwide service. First started on an experimental basis in the San Fran-

cisco area in December 1967, the service was established on a continuing basis as part of the Federal-State Market News Service in late 1968.

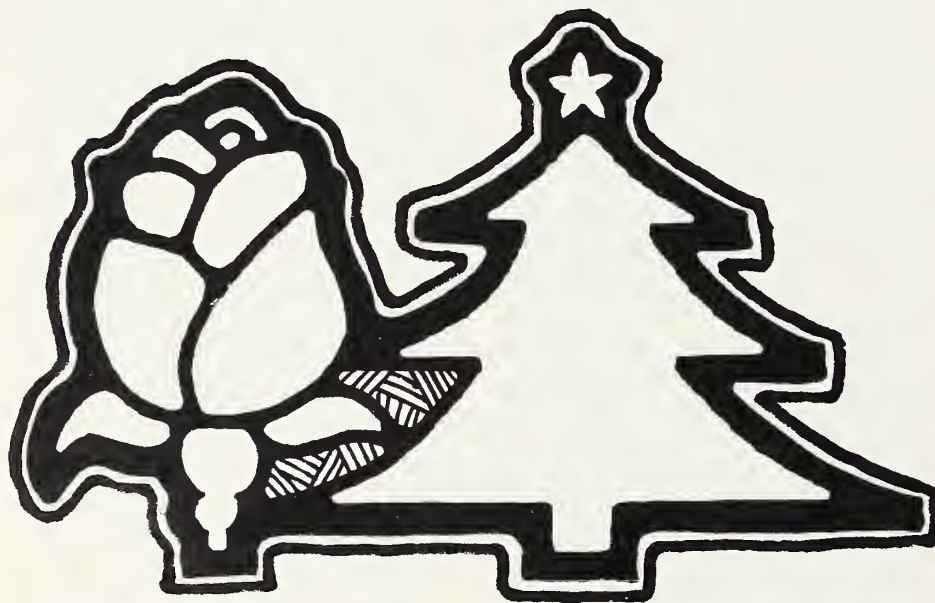
The Federal-State Market News Service, administered by USDA's Consumer and Marketing Service and cooperating State agencies, has been providing reports on prices and market conditions for major agricultural products for more than 50 years.

Ornamental crops market news was initiated at the request, and with the financial support, of the floriculture industry.

Because ornamentals are horticultural crops, similar to fruits and vegetables, the new service became part of the Fruit and Vegetable Market News Service and fruit and vegetable market news reporters were trained to handle reporting of ornamental crops.

The continued cooperation and support of the floriculture industry has encouraged the expansion of market news for this major agricultural industry.

FROM ROSES TO CHRISTMAS TREES-



ornamental market news is growing



By David L. Smith

Reporting sales of roses and carnations in Massachusetts and nearby areas is the most recent addition to production area reporting. This service was requested by shippers and growers in the area, following establishment of the Boston terminal market report.

Market news in production areas at first covered the five major crops of the floriculture industry—roses, carnations, standard chrysanthemums, pompons, and gladioli.

Sales of cut flowers, ferns and hardy greens are now included in Florida production area reports. A separate weekly report now being published on an experimental basis shows prices and volume of foliage plants sold by Florida firms.

Terminal market reports cover sales of all major ornamental products on the market—potted chrysanthemum and azalea plants, anthuriums, orchids, iris, tulips, Christmas trees,

and many varieties of greens, as well as the major cut flower crops.

A weekly "National Market Trends" report, issued from the San Francisco market news office, is based on information from reporters at all locations covering ornamental crops.

It provides a concise report of current trading and gives prospects for market conditions and supplies in the immediate future. It also includes data on the volume of imports of ornamental crops arriving at terminal markets.

Market news reporters interview sellers and buyers every day to prepare the analyses of prices and market conditions. Cooperation of industry members makes market news possible, because the reports are based on information they voluntarily give.

All market news offices are connected by a nationwide leased-wire system, and information is exchanged rapidly by teletype. Mimeographed reports on production area and ter-

minal market sales are generally available three times a week. Radio and press outlets also provide information from market news reports.

In addition, the information is available by telephone from market news offices covering fruits, vegetables, and ornamental crops, as well as from those offices that cover only fruits and vegetables.

If you'd like to learn more about the Market News Service on Ornamental Crops, and how to obtain reports, write for a copy of "The Market News Service on Fruits, Vegetables, and Ornamental Crops," (MB-54).

Send a post card to Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please use your ZIP code. ☐

*The author is Head, Market Reports Section, Market News Branch, Fruit and Vegetable Division, C&MS, USDA.*



*Orchids (above) are placed on display at the wholesale flower market. Market news man Barney McKay (right) interviews wholesaler at San Francisco flower market.*



**AS A GROWER OF** fruits and vegetables, you may not think the Perishable Agricultural Commodities Act affects you, but it does. Here's how:

The key words are rights and responsibilities. Growers are protected by this Federal law against unscrupulous practices by others in the produce industry. And growers have certain rights regardless of whether or not they are licensed under the Act.

Only under certain circumstances are growers required to be licensed under the PAC Act.

You must obtain a license if you sell products grown by other farmers. If you sell only products you grow, you are not subject to license.

Cooperative associations are required to be licensed if they market the produce of their members.

Remember that those who are required to have a license, but operate without one, can be heavily penalized.

If you are victimized by unfair trading practices, you have the right to file a complaint under the Act to recover your losses.

Other provisions of the law that protect you are:

- Buyers can't reject produce they have bought or contracted to buy from you without reasonable cause.

- Buyers must pay you promptly for produce when it is delivered in compliance with the contract.

- Commission merchants who receive your produce on consignment

can't dump, discard, or destroy it without reasonable cause. After selling your produce, they must furnish you with an accurate accounting of the sale and promptly pay you the net proceeds.

Shippers or agents who harvest, pack, and sell your crops also must furnish you accurate accountings and promptly pay you the net proceeds after deducting their fees and other proper charges.

Growers also have certain responsibilities under the PAC Act. One basic responsibility is to comply with all contract obligations.

For example, you should deliver the quality and quantity of produce stated in your contract.

If you don't comply with the contract's conditions, the buyer may reject the shipment, or accept it and pay you its reasonable value.

Although a buyer can't file a complaint under the PAC Act against an unlicensed grower, he can sue for damages in a court of law.

Another one of your basic responsibilities is to label your produce accurately. Misrepresentation and misbranding is an unfair trade practice under the PAC Act.

The PAC Act does not require any specific markings on containers or shipping cartons, but it does require that those used be accurate and honest. If you misbrand produce, the receiver may reject your shipment, or

correct the mislabeling at your expense.

PACA specialists advise that you heed the following pointers to minimize disputes:

- Check the financial status and reputation of a person before shipping produce to him.

- Make written contracts. Verbal agreements are often hard to prove. The contract should show the quality and quantity of the produce sold, the date you are required to deliver it, and the price and time of payment.

- If extra services such as harvesting are to be included, specify the fees for these services in writing.

- Maintain personal records showing the approximate weight or the number of packages of produce delivered, and the date of delivery.

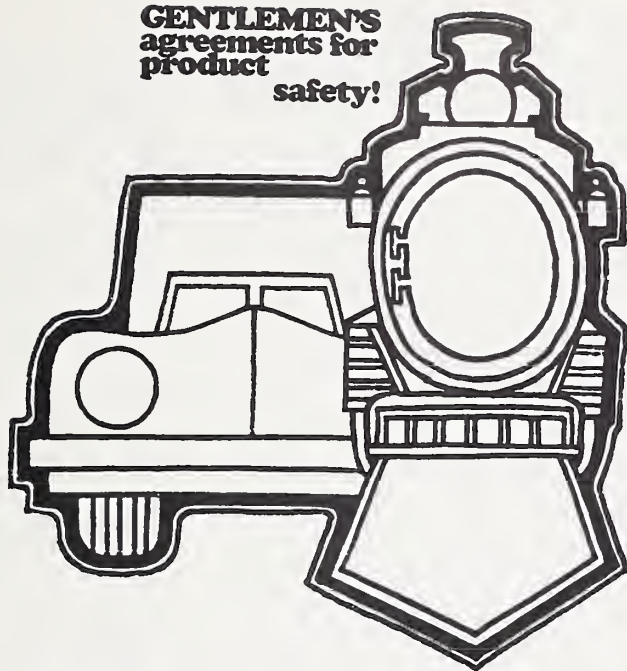
- Finally, when you have a problem or a question regarding your rights or responsibilities, call the nearest PACA office for free advice: Washington, D.C. long distance phone (202) 737-4118; Los Angeles, Calif. (213) 628-7766; Chicago, Ill. (312) 922-0328; New York, N.Y. (212) 732-3193; Fort Worth, Texas (817) 335-1630.

The addresses of the PACA offices are listed in USDA's booklet, "Fair Trading in the Fruit and Vegetable Industry" (PA-804). It is available free from the Information Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250. □

## the two r's for growers: rights and responsibilities



**GENTLEMEN'S  
agreements for  
product  
safety!**



By L. L. Gast

ARE YOU, AS A transporter, aware of the responsibilities involved in shipping inspected meat and poultry in interstate or foreign commerce?

Under Federal meat and poultry inspection laws, you have several responsibilities toward protecting the Nation's meat and poultry supply.

One good way to fulfill a lot of these is through a voluntary "gentlemen's agreement" with USDA's Consumer and Marketing Service. Many rail and trucking firms have already done so.

Federal inspection laws require that you keep accurate records of your business transactions involving meat and poultry products.

When requested, you must allow an authorized USDA representative to examine your facilities, inventory and records. He may, when necessary, copy your records and take reasonable samples of your meat and poultry inventory after paying you fair market value for them.

Meat or poultry not intended for use as human food must be denatured and clearly identified as "not for human food" while being transported across State lines. And to assure that such meat will not be used for human food, Federal regulations spell out how you must handle dead, dying, diseased or disabled ("4-D") animals or

products from such animals.

For example, to do any transporting of 4-D meat, you first must register with USDA. You must also ensure that the supplier of meat from 4-D animals furnishes you with a proper shipping certificate.

The laws also prohibit adulterating or misbranding meat and poultry. If a product for human food should become adulterated or misbranded, you may not move it in commerce until it has passed reinspection by USDA inspectors.

By participating in voluntary "gentlemen's agreements" with C&MS, transporters can more easily satisfy these requirements. Here's what happens. . . .

Whenever a shipment is suspected of being adulterated—because of an accident, delay, hijacking or equipment breakdown—the transporter phones the nearest C&MS compliance officer, who arranges for product reinspection at a State or federally inspected plant.

He tells the officer the product's location, condition and original destination. Generally, permission will be given to move the product to a new destination. The transporter has then fulfilled his legal responsibility, except to move the product to the new destination.

The goal is to get the food to an inspected plant as soon as possible, to avoid the risk of further spoilage. So, when necessary, the truck or train may be started on its way to a nearby inspected plant before the compliance officer is notified.

If, for example, your truck's cooler fails, you can send the truck directly to the inspected plant. But you should call the compliance officer promptly, to give him time to arrange for receipt and reinspection at the plant.

When possible, it's preferable to forward the meat or poultry to a federally inspected plant for this reinspection. If it goes to a State inspected plant, it may not, under Federal law, move in interstate commerce again.

On reinspection at the plant, the product may be either released or condemned. Sometimes it is released after minor work to make the product meet inspection requirements. If, for example, the containers have been damaged but the inspector finds the food still wholesome, he may pass it after repackaging.

Sometimes suspect products can't be taken promptly to a plant for reinspection. C&MS has authority, in such cases, to detain it so no adulterated product will reach the marketplace. C&MS talks with the owner of the food about its disposition.

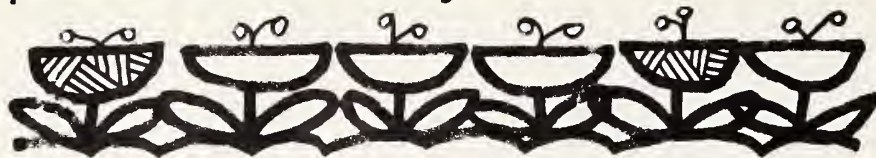
About 95 percent of these talks result in voluntary, correct handling of the product by the owner. When the owner fails to take proper action, C&MS may use the seizure authority given it under Federal inspection laws. C&MS files a complaint against the product with the courts, which in turn can direct a Federal marshal to seize it. Its disposition is then determined by the court.

In all of this, the ultimate goal is consumer protection—seeing that only wholesome meat and poultry reach the consumer. For the transporter and C&MS, this responsibility is best met under the "gentlemen's agreement," where the emphasis is on voluntary compliance with inspection requirements.

Have you made one yet? ☐

*The author is Acting Director, Program Review and Compliance Staff, C&MS, USDA.*

## plentiful foods for May



EGGS ARE THE FEATURED commodity on USDA's Plentiful Foods List for May.

Also on the list are potatoes and potato products, canned ripe olives, milk and dairy products, canned cling peaches, and turkeys.

Because of increased production, prospects are good for a bountiful supply of eggs at attractive consumer prices. Eggs are among our most ver-

satile foods, and can be served at any meal.

Large inventories of frozen French fries and instant mashed potatoes assure ample supplies of these tasty and easy-to-fix foods.

Milk and dairy products and other plentiful—canned cling peaches, ripe olives, and turkeys—will help the homemaker bring variety to her summertime menus. □

## Consumers-- do you know?

It's baked bean time again, and USDA has meat standards which apply to federally inspected varieties of this cookout favorite. These might be worthwhile to keep in mind when you shop.

"Beans with frankfurters in sauce," for example, must contain at least 20 percent franks on a fresh-weight basis. "Beans with ham in sauce," on the other hand, must contain at least 12 percent cooked ham. "Beans with bacon in sauce" must contain at least 12 percent bacon. □

GOING CAMPING? Quick to fix, heat-and-serve canned foods can be a real boon after a long day on the hiking trail.

Federally inspected "beef with barbecue sauce" must contain at least 50 percent beef after it's cooked in the plant—and so must "beef with gravy," under USDA meat product standards.

Canned stews made with beef or lamb must contain at least 25 percent fresh meat before cooking in the plant. Under similar standards for poultry products, "chicken barbecue" must contain at least 40 percent cooked, deboned chicken meat.

Knowing about standards like these can help you serve well-balanced (but easy!) meals while you're enjoying the outdoors.

For more on USDA standards, write for the free publication, "Meat and Poultry—Standards for You" (G-171), to: Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. □

IF YOU'RE THE KIND of food shopper who carefully reads labels and tries to get the best values for your money and menu, you'll want a copy of "Standards for Meat and Poultry Products—A Consumer Reference List" (C&MS-85).

It lists, among other things, the minimum amount of meat or poultry that USDA inspectors require to be in more than 150 federally inspected products—from that old favorite, "Beef Stew" (at least 25% cooked meat), to "Chicken Chow Mein" (at least 4% cooked poultry meat).

Write: Information Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250. Include the title and number, and, of course, your name, address, and ZIP code. □

## interpreting the egg products inspection act

By Ashley R. Gulich

IF YOU ARE IN the egg business—producing or processing eggs—you will be affected by the Egg Products Inspection Act signed into law December 29, 1970.

Although it is quite complex, the law can be divided into three main parts according to its major areas of impact—egg products, shell eggs, and uniform standards for shell eggs in interstate commerce. Let's look at the provisions of each part separately.

The first major part deals with egg products. Egg breaking and drying plants processing liquid, frozen, or dried egg products will be required to operate under continuous USDA inspection as of July 1, 1971.

If you break out only a few cases of eggs each week to sell to a local bakery, you are considered an egg processor, just as you are if your plant is a highly mechanized operation producing thousands of pounds of egg products a day. It doesn't matter whether you sell just locally, across State lines, or even in foreign commerce—the Act applies equally to all egg processors.

To qualify for inspection, processing plants must comply with all raw material, sanitation, operation, equipment, and facility requirements which are spelled out in detail in the regulations governing the Act.

Stringent sanitary regulations outline approved methods and chemicals for cleaning and sanitizing all plant equipment, especially processing machines which come in contact with the product. Equipment must be constructed of a material that will not react with the product and is easy to clean, such as stainless steel.

Since temperature is such an important quality factor in liquid eggs, adequate mechanical cooling and holding facilities are required to prevent deterioration of the egg product.

A pasteurizer heads the list of essential equipment for processing plants, because all egg products are required to be pasteurized to kill any bacteria that may be present. Egg products may be shipped from one USDA-inspected plant to another for pasteurization.

Plants must be rodent-proof. All parts of the building must be easy to clean and floors must be watertight with adequate drainage systems. These regulations are to facilitate production of a wholesome product by minimizing the possibility of product contamination.

All egg processors and breakers, whether large or small, who have not already done so, should immediately contact the nearest Consumer and Marketing Service poultry grading office.

You will find these offices listed in your local or metropolitan area telephone directory. Look under the "U.S. Government" heading, then under "U.S. Department of Agriculture, Consumer and Marketing Service."

Plants now under the USDA voluntary inspection program must apply for inspection under the Act and submit labels for approval. Other plants must request a survey, submit blueprints of their plant, complete any necessary remodeling and equipment installation, submit labels, and have their water supply approved before they can qualify for inspection.

The law may exempt producer-breakers who sell all of their products directly to household consumers, and egg products processors who receive, handle, and break only consumer-grade eggs.

To receive exemption, plants must apply and fulfill all the requirements that USDA-inspected plants must meet. They may then receive an exemption number.

Such plants are exempted only from continuous inspection. They will be checked periodically to assure that they are complying with the law.

After July 1, 1971, imported eggs will be subject to the same requirements as U.S. products. They may be imported only from countries using inspection systems comparable to the USDA inspection program. USDA officials must approve the foreign system and periodically check the plants processing egg products.

A second major part of the Egg Products Inspection Act will regulate the disposal of "restricted" shell eggs after July 1, 1972. Restricted eggs are defined in the Act as dirties, checks (those with cracked shells but not leaking), incubator rejects, inedibles, leakers, and loss eggs.

Checks and dirties may be shipped to an officially inspected plant to be properly segregated and processed but may not otherwise be used. All other restricted eggs must be denatured or destroyed to prevent their use as human food.

Egg handlers must keep records of all transactions and will be subject to periodic inspection. Shell egg packers packing for consumers, bakeries, institutions, and food manufacturing plants will be checked at least once each calendar quarter to determine the disposition of their restricted eggs. Imported shell eggs, after entry, will be treated exactly the same as domestic eggs.

Also by July, 1972 bakeries, restaurants, and food manufacturers who break eggs for use in their products, must buy only consumer-graded eggs.

These businesses will be checked periodically by the Food and Drug Administration. If they are not complying with this regulation, they will be reclassified as egg breaking plants. Then, to continue breaking eggs, they would have to install all equipment and facilities specified in the Act and apply for inspection as egg processors.

The third major provision of the Act, which also becomes effective July 1, 1972, will facilitate the marketing of shell eggs in interstate commerce. States will be prohibited from impos-

ing any standards which differ from official USDA standards for grade and size on eggs moving in interstate commerce.

Some States now have standards for shell eggs slightly different from the U.S. standards. They still may use these standards for eggs moving only within their State.

Except for Hawaii, Alaska, Puerto Rico, and the Virgin Islands, States may not require labeling indicating the State of origin of shell eggs. However, they can require that the name, address, and plant number of the packer appear on carton labels.

While Federal-State quality grading of shell eggs will remain a voluntary, fee-for-service program, the Federal government will pay all expenses for mandatory egg products inspection. However, plants requesting holiday work or overtime must pay the cost of this special service.

C&MS will administer all phases of the Egg Products Inspection Act, but will rely on strong cooperation of State government agencies in carrying it out. States will be reimbursed by the Federal government for costs they incur.

The Egg Products Inspection Act differs from other Federal-State cooperative programs in that respect. It also differs because it makes no distinction between interstate and intrastate commerce.

USDA officials who are charged with implementing the Act believe these innovations will ease its application and administration.

Little time remains before the first major part of the Act becomes effective. So if you're an egg processor and have not taken the first steps toward compliance with the new law, don't delay in getting in touch with the nearest poultry grading office. □

*The author is Chief, Standardization Branch, Poultry Division C&MS, USDA.*

# The Man Behind The Man Behind The Fruit and Vegetable Stand

By M. Fisher Kee

*Inspectors at a terminal market training class (immediate right) watch closely as instructor Pete Manos points out internal quality factors in cantaloup. The four photos following show fruit and vegetable inspectors in their various habitats: checking grapes at a packing station in the vineyard, potatoes in a packinghouse, cauliflower at a loading dock, and tomatoes at a terminal market.*



**I**F YOU GET TO THE supermarket early enough (before the rest of us have jumbled up the produce man's pride and joy), you can see why selling fresh fruits and vegetables is a labor of love.

There they are—generous piles of shiny red apples, plump purple eggplants in symmetrical rows, crisp green romaine tucked beautifully in place.

But how the produce man must suffer. His success is his downfall. When the cauliflower and the melons look absolutely irresistible, we just can't resist them—and there goes all the produce man's hard work in building a beautiful display.

Of course, it isn't the arrangement alone that lures us, and the produce man is probably first to admit it. He must start with fruits and vegetables that look good and are good.

One way that large-scale buyers of produce insure the quality of the fruits and vegetables they buy is to have them inspected by Federal or Federal-State inspectors. USDA's Con-

sumer and Marketing Service and cooperating State agencies provide these inspection services.

Federal fruit and vegetable inspectors are stationed at all major wholesale (terminal) markets in the country, and Federal-State inspectors at all major production areas or shipping points. So fruits and vegetables may be inspected for quality when they are packed in the producing area, or after they are shipped to a wholesale market or chainstore warehouse.

You've probably seen the grade names U.S. No. 1 on bags of potatoes, carrots, or onions, and U.S. Fancy on apples or other fruits. These grade names signify specific levels of quality.

USDA grades have been established for most fresh fruits and vegetables. The job of the fruit and vegetable inspector is to check fruits and vegetables to see which grade they meet.

Use of the inspection service is voluntary (except in certain instances), and the user pays a fee for it. Packers, shippers, wholesale buyers, and others

use the inspection service because it makes it easier for them to trade, especially when they are separated by long distances. The official inspection certificate is assurance that both sides know they are dealing with a product of specific quality.

The reliability of the inspection service depends on inspectors all over the country—they've got to see things the same way, or the system wouldn't work. In other words, if an inspector in Michigan certifies apples as U.S. Fancy, they've got to be U.S. Fancy to inspectors in New York and San Francisco, too.

Training, in large part, is the answer to assuring uniform nationwide inspection.

Each year, terminal market inspectors attend comprehensive training courses or refresher schools to keep current on grades and inspection methods.

Because all kinds of produce are received at terminal markets, these inspectors are called upon to check



practically every kind of fruit or vegetable you can name. Fruit and vegetable specialists from the regional and Washington, D.C. headquarters offices conduct the training courses.

Shipping point inspectors, both new and experienced, usually attend training classes at the beginning of the season for each crop they will inspect.

In California, for example, they may work first on grapes, then potatoes, and then pears or peaches. They are trained to recognize the special quality factors and defects of each.

Last year, nearly 2,500 experienced shipping point inspectors and more than 1,000 new inspectors received training. The number of new inspectors each year is high, because State agencies generally must hire temporary inspectors to handle heavy seasonal work. For instance, when the big potato crop comes in, Idaho adds about 285 inspectors to its regular staff of 16.

The Washington, D.C. staff of C&MS' Fruit and Vegetable Division

holds special "Train-the-Trainer" classes, in different parts of the country, to teach State employees and others how to teach.

Members of the headquarters staff also help State agencies teach courses in inspecting specific fruits and vegetables.

In addition to their work on training, the headquarters staff prepares handbooks and special visual materials (models, color slides, and other aids) to help inspectors interpret the grade requirements.

Two other means of assuring that inspectors everywhere see eye-to-eye are the telephone and Federal supervisors who make on-the-job checks of inspection. Whenever a new problem or question of interpretation comes up, the Washington staff is available immediately by phone to help settle it.

Training, handbooks, visual aids, personal and telephone contact, all help make sure an inspector knows his potatoes—or peaches or carrots or plums.

Last year Federal and State inspectors certified the quality of about half the fresh fruits and vegetables sold.

You won't find a grade label on most fresh fruits and vegetables. It isn't required by Federal law, for one thing. But if you'd like some help in picking out quality produce, you can get two "handbooks" prepared especially for consumers by the same people who prepare the inspectors' handbooks.

Single free copies of "How to Buy Fresh Fruits" (G-141) and "How to Buy Fresh Vegetables" (G-143) are available by post card request. Write: Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please use your ZIP code. ☐

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## cover story

America's pioneers, hungry for gold and silver, satisfied their appetites with jerky as they forged westward. Now sold in food stores, jerky is making a comeback as a nutritious and wholesome snack food. See pp. 2-4.

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